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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,716	04/04/2001	Thomas Schutz	Q63690	1759

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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3213

EXAMINER
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NGUYEN, THUAN T

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/824,716

Applicant(s)

SCHUTZ ET AL.

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelin et al. (U.S. Patent No. 5,937,014) in view of Benveniste (US Patent 6,259,922 B1).

Regarding claims 1 and 6, Pelin discloses a receiver (Fig. 1 for a base station telecommunication receiver) and its "method of combining at least two received signals of a telecommunication system" (Fig. 1 shows a base communication system with two antennas 170 and 180 connected to two transceivers 150 & 160 for receiving/transmitting at least two signals), "processing a first combining algorithm for providing a resulting signal, and a second combining algorithm for providing a second resulting signal, and combining the two resulting signals, wherein the combination depends on the two resulting signals", i.e., a conventional spatial and temporal diversity technique shows that a first combining algorithm DWILSP 910 and another second combining algorithm DWILSP 910 is combined at temporal combining 920 in providing the resulting output of

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the two resulting signals from Ts 900 as receiving signals at Received Input (Fig. 9, and col. 2/lines 22-40, and col. 10/line 50 to col. 11/line 29).

Applicants argue that Pelin does not provide two distinct algorithms, and the “differing combining algorithm” is provided as a second one by amending accordingly; however, Benveniste teaches this limitation as within the mixed power control technique, the combining of received signals is performed and by using different algorithms, the mixed and result combined signal is produced for signal quality achievement (Benveniste, col. 2/lines 39-53 & col. 3/lines 38-51 for signal quality addressed; and col. 5/lines 1-17, col. 19/lines 38-47 and col. 23/line 60 to col. 24/line 41 for different algorithms can be combined for the result signal as addressed). Therefore, it would have been obvious to one of ordinary skill in the art to modify Pelin’s system with Benveniste’s teaching feature as noted in order to obtain a telecommunication system for combining differing algorithms to achieve the resultant signals as claimed.

As for claim 2, Pelin discloses that the quality of the two resulting signals is estimated (col. 2/lines 22-40 as the quality of transmitted signals taken into accounts for DWILSP algorithm to evaluate).

As for claim 3, Pelin further teaches that “the estimated quality of the two resulting signals is used to weight the combination of the two resulting signals” (col. 2/lines 22-40 as the decoupled weighted least squares with projections (DWILSP) algorithm and the iterative least squares with projections (ILSP) algorithm is used for weighting the combination of the resulting signals (col. 2/lines 22-40 for conventional technique and as well as disclosed in Fig. 11, col. 13/line 54 to col. 14/line 33).

As for claim 4, Pelin discloses “wherein one of the two algorithm is a temporal reference algorithm and the other one of the two algorithm is a spatial reference algorithm” (col. 11/lines 2-28 as spatial and temporal algorithm is used).

As for claim 5, Pelin further discloses “wherein more than two algorithms is used”, i.e., a plurality of algorithms is used (Figs. 9-11, and col. 5/line 30 to col. 7/line 19 for a conventional technique for N algorithms as for N blocks of DWILSP).

As for claim 7, in further view of claim 1 above, this claims for a method of combining a plurality of received signals of a telecommunication system as stated earlier with the determination of condition of the signals as introduced, also is rejected in view of Benveniste as Benveniste discloses the condition of signals can be determined based on monitoring or detecting of interference by using neighbor-channel interference management methodologies based on signal strengths analysis of the received signals (col. 9/line 65 to col. 12/line 16 for uplink, downlink power control addressed).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Pelin’s system with Benveniste’s teaching feature as noted in order to obtain a telecommunication system for combining differing algorithms to achieve the resultant signals with the determination the condition of the received signals as claimed.

As for claims 8-9, these claims with same limitations as addressed earlier are rejected for the reasons given in the scope of claims 1-7 as discussed above.

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***Conclusion***

**4. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9306, (for Technology Center 2600 only)**

*Hand-delivered responses should be brought to Crystal Park II,  
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).*

**5.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

*Nguyen V8*  
*12-27-2004*

**NGUYENT.VO  
PRIMARY EXAMINER**

Tony T. Nguyen  
Art Unit 2685  
December 24, 2004